

ABSTRACT

A method for evaluating a strongly acidic cation-exchange resin wherein said strongly acidic cation-exchange resin is contacted with an aqueous eluting solution and polystyrenesulfonic acid being eluted from this resin is measured, which comprises the steps of setting a plurality of molecular weight ranges in the molecular weight distribution of the polystyrenesulfonic acid eluted, and evaluating the performance of the cation-exchange resin based on the relationship of each molecular weight range with the amount eluted in said each molecular weight range. The evaluation method allows precise evaluation of the performance of a cation-exchange resin independently of the structure of the resin matrix and the circumstance under which it is used, which leads to the determination of an optimum timing for replacement of a resin in a water treatment system using a cation-exchange resin, and thus to the extension of an replacement cycle of the resin and the reduction of an operation cost for the system.

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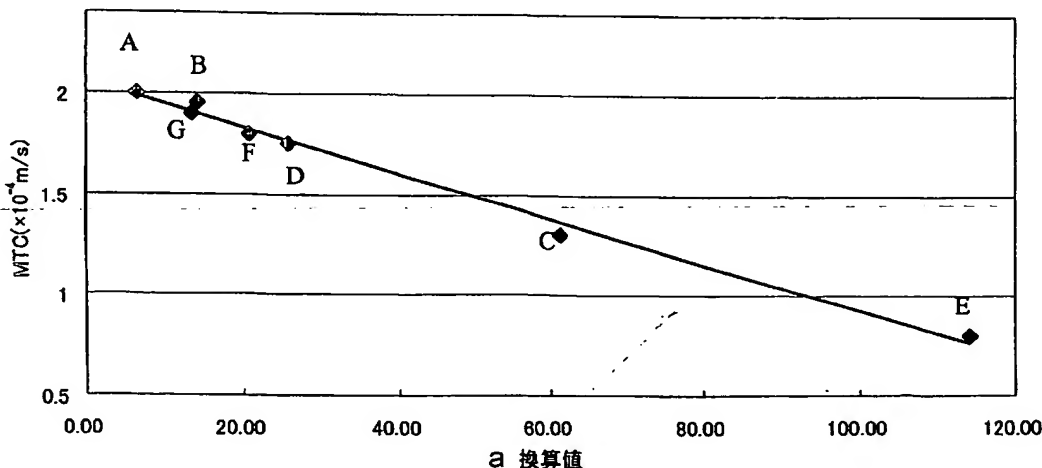
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(54) Title: METHOD FOR EVALUATING CATION-EXCHANGE RESIN AND METHOD FOR CONTROLLING WATER TREATMENT SYSTEM USING THE SAME

(54) 発明の名称: 陽イオン交換樹脂の評価方法およびそれを用いた水処理系の管理方法



a .VALUE CONVERTED ACCORDING TO THE INVENTION

(57) Abstract: A method for a cation-exchange resin wherein a strongly acidic cation-exchange resin is contacted with an aqueous eluting solution and the polystyrenesulfonic acid being eluted from this resin is measured, which comprises setting a plurality of molecular weight ranges in the molecular weight distribution of the polystyrenesulfonic acid eluted, and evaluating the performance capability of the cation-exchange resin based on the correspondence relationship of each molecular weight range with the amount eluted in said each molecular weight range. The evaluation method allows on-target and precise evaluation of the performance capability of a cation-exchange resin being independent of the structure of a base resin and the circumstance under which it is used, which leads to the determination of the optimum time for the exchange of a resin in a water treatment system using a cation-exchange resin, and thus to the extension of exchange of a resin and the reduction of an operation cost for the system.

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